

**WHAT IS CLAIMED IS:**

1. A composition, comprising, in a cosmetically acceptable medium,
- at least one fluorescent dye that is soluble in the medium and
  - at least one conditioning agent that is insoluble in the medium, chosen from:

- synthetic oils;
- mineral oils;
- plant oils;
- animal oils;
- fluoro oils;
- perfluoro oils;
- natural and synthetic waxes;
- carboxylic acid esters; and
- compounds of formula  $R_3\text{CHOH-CH(NHCOR}_1\text{)-CH}_2\text{OR}_2$ , wherein

-  $R_1$  is chosen from  $C_{14}$ - $C_{30}$  alkyl radicals, optionally substituted in at least one position chosen from the  $\alpha$  position with at least one hydroxyl radical and the  $\omega$  position with at least one hydroxyl radical esterified with at least one fatty acid chosen from  $C_{16}$ - $C_{30}$  fatty acids,

-  $R_2$  is chosen from a hydrogen atom and (glycosyl) $_n$  and (galactosyl) $_m$  radicals wherein  $n$  is a number ranging from 1 to 4 and  $m$  is a number ranging from 1 to 8, and

-  $R_3$  is chosen from  $C_{15}$ - $C_{26}$  hydrocarbon-based radicals optionally substituted with at least one radical chosen from alkyl radicals and  $C_{15}$ - $C_{26}$   $\alpha$ -hydroxyalkyl radicals optionally esterified with at least one  $C_{16}$ - $C_{30}$   $\alpha$ -hydroxy acid.

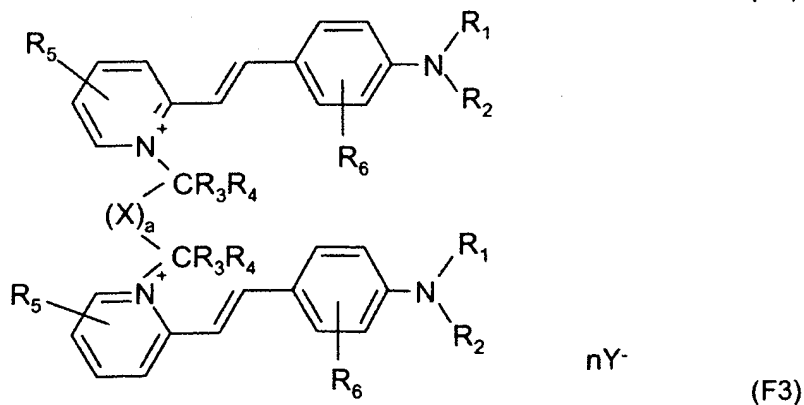
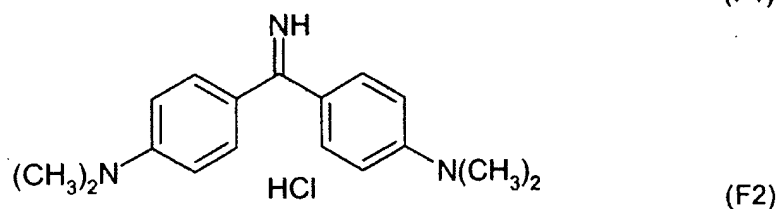
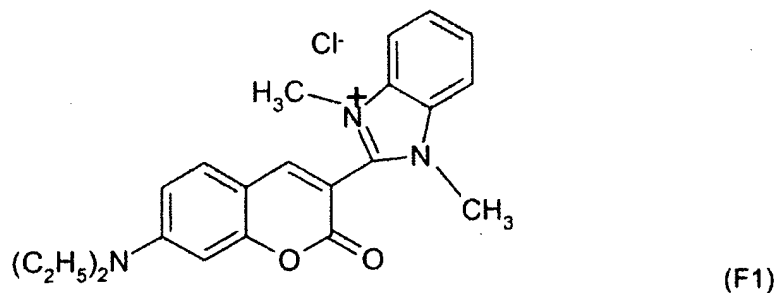
2. The composition according to Claim 1, wherein the at least one fluorescent

dye has a reflectance maximum that is in the wavelength range from 500 to 650 nanometers.

3. The composition according to Claim 2, wherein the at least one fluorescent dye has a reflectance maximum that is in the wavelength range from 550 to 620 nanometers.

4. The composition according to Claim 1, wherein the at least one fluorescent dye is chosen from naphthalimides; cationic and non-cationic coumarins; xanthenodiquinolizines; azaxanthenes; naphtholactams; azlactones; oxazines; thiazines; dioxazines; azo, azomethine and methine monocationic and polycationic fluorescent dyes.

5. The composition according to Claim 1, wherein the fluorescent dye is chosen from compounds of the following formulae:



wherein:

-  $R_1$  and  $R_2$ , which may be identical or different, are each chosen from:

- a hydrogen atom;
- linear and branched alkyl radicals comprising from 1 to 10 carbon atoms, wherein the alkyl radicals are optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and halogen atoms;
- aryl and arylalkyl radicals, wherein the aryl group comprises 6 carbon atoms and the alkyl radical comprises from 1 to 4 carbon atoms; and wherein the aryl radical is optionally substituted with at least one alkyl radical chosen from linear and branched alkyl radicals comprising 1 to 4 carbon atoms optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and halogen atoms;
- $R_1$  and  $R_2$  may optionally form, together with the nitrogen to which they are attached, a heterocycle and may comprise at least one other hetero atom, wherein the heterocycle is optionally substituted with at least one alkyl radical chosen from linear and branched alkyl radicals, wherein the at least one alkyl radical is optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and halogen atoms;

- $R_1$  or  $R_2$  may optionally form, together with the nitrogen atom to which they are attached and one of the carbon atoms of the phenyl group bearing the nitrogen atom, a heterocycle;
- $R_3$  and  $R_4$ , which may be identical or different, are each chosen from a hydrogen atom and alkyl radicals comprising from 1 to 4 carbon atoms;
- $R_5$ , which may be identical or different, is chosen from a hydrogen atom, a halogen atom and linear and branched alkyl radicals comprising from 1 to 4 carbon atoms, optionally interrupted with at least one hetero atom;
- $R_6$ , which may be identical or different, is chosen from a hydrogen atom; a halogen atom; linear and branched alkyl radicals comprising from 1 to 4 carbon atoms, wherein the alkyl radicals are optionally substituted with at least one entity chosen from hetero atoms, groups bearing at least one hetero atom, and halogen atoms and/or optionally interrupted with at least one entity chosen from hetero atoms and groups bearing at least one hetero atom;
- X is chosen from:
  - linear and branched alkyl radicals comprising from 1 to 14 carbon atoms and alkenyl radicals comprising from 2 to 14 carbon atoms, wherein the alkyl and alkenyl radicals are optionally interrupted with at least one entity chosen from hetero atoms and groups comprising at least one hetero atom and/or optionally substituted with at least one entity chosen from hetero atoms, groups comprising at least one hetero atom, and halogen atoms;
  - 5- and 6-membered heterocyclic radicals optionally substituted with at least one alkyl radical chosen from linear and branched alkyl radicals comprising from 1 to 14 carbon atoms, optionally substituted with at least one entity chosen from hetero atoms; linear and branched aminoalkyl radicals

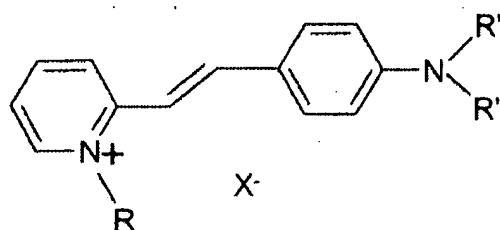
comprising from 1 to 4 carbon atoms, optionally substituted with at least one hetero atom; and halogen atoms;

- fused and non-fused aromatic and diaromatic radicals, optionally separated with at least one alkyl radical comprising from 1 to 4 carbon atoms, the at least one aryl aromatic and diaromatic radicals radical is optionally substituted with at least one entity chosen from halogen atoms and alkyl radicals comprising from 1 to 10 carbon atoms optionally substituted and/or interrupted with at least one entity chosen from hetero atoms and groups bearing at least one hetero atom;
- a dicarbonyl radical; and
- wherein the group X possibly bears at least one cationic charge;

- a is equal to 0 or 1;

- Y<sup>-</sup>, which may be identical or different, is chosen from organic and mineral anions; and

- n is an integer equal to at least 2 and at most equal to the number of cationic charges present in the at least one fluorescent dye; and



(F4)

wherein R is chosen from methyl and ethyl radicals; R' is a methyl radical and X<sup>-</sup> is chosen from anions.

6. The composition according to Claim 5, wherein, in formula (F3), R<sub>1</sub> and R<sub>2</sub>, which may be identical or different, are each chosen from linear and branched alkyl radicals comprising from 1 to 4 carbon atoms.

7. The composition according to Claim 5, wherein, in formula (F3), the heterocycle formed from  $R_1$  and  $R_2$  and the nitrogen to which they are attached, is optionally substituted with at least one alkyl radical chosen from linear and branched alkyl radicals comprising from 1 to 4 carbon atoms.
8. The composition according to Claim 5, wherein, in formula (F4),  $X^-$  is chosen from chloride, iodide, sulphate, methosulphate, acetate and perchlorate anions.
9. The composition according to Claim 1, wherein the at least one fluorescent dye is chosen from dyes in the orange range.
10. The composition according to Claim 1, wherein the at least one fluorescent dye is present in an amount ranging from 0.01% and 20% by weight, relative to the total weight of the composition.
11. The composition according to Claim 10, wherein the at least one fluorescent dye is present in an amount ranging from 0.05% to 10% by weight, relative to the total weight of the composition.
12. The composition according to Claim 11, wherein the at least one fluorescent dye is present in an amount ranging from 0.1% to 5% by weight, relative to the total weight of the composition.
13. The composition according to Claim 1, wherein the at least one fluorescent dye is soluble in the medium of the at least one composition to at least 0.001 g/l at a temperature ranging from 15 to 25°C.
14. The composition according to Claim 13, wherein the at least one fluorescent dye is soluble in the medium of the at least one composition to at least 0.5 g/l at a temperature ranging from 15 to 25°C.
15. The composition according to Claim 14, wherein the at least one fluorescent

dye is soluble in the medium of the at least one composition to at least 1 g/l at a temperature ranging from 15 to 25°C.

16. The composition according to Claim 15, wherein the at least one fluorescent dye is soluble in the medium of the at least one composition to at least 5 g/l at a temperature ranging from 15 to 25°C.

17. The composition according to Claim 1, wherein the at least one insoluble conditioning agent is chosen from

- synthetic oils chosen from polyolefins;
- animal and plant oils chosen from sunflower oil, corn oil, maize oil, soybean oil, avocado oil, jojoba oil, marrow oil, grapeseed oil, sesame seed oil, hazelnut oil, fish oils, glyceryl tricaproylate, plant and animal oils of formula  $R_9COOR_{10}$  wherein  $R_9$  is chosen from  $C_7$ - $C_{29}$  fatty acid residues and  $R_{10}$  is chosen from linear and branched  $C_3$ - $C_{30}$  hydrocarbon-based chains; and natural and synthetic essential oils;
- natural animal and plant waxes, and synthetic waxes;
- N-linoleyldihydrosphingosine, N-oleyldihydrosphingosine, N-palmitoyldihydrosphingosine, N-stearoyldihydrosphingosine and N-behenoyldihydrosphingosine;
- fluoro oils chosen from perfluoropolyethers, fluorohydrocarbon oils, fluorocarbons and fluorinated hydrocarbons,
- fatty alcohols chosen from linear and branched  $C_8$ - $C_{22}$  fatty alcohols, optionally oxyalkylenated with 1 to 15 mol of alkylene oxide and polyglycerolated with 1 to 6 mol of glycerol; and
- carboxylic acid esters chosen from linear and branched, saturated and

unsaturated C<sub>1</sub>-C<sub>26</sub> aliphatic monocarboxylic acid esters of saturated aliphatic alcohols, wherein the total carbon number of the esters is greater than or equal to 10; mono-, di-, tri-, tetra- and penta-esters of dicarboxylic and tricarboxylic acids and of C<sub>1</sub>-C<sub>22</sub> alcohols and of C<sub>2</sub>-C<sub>26</sub> di-, tri-, tetra- and pentahydroxy alcohols.

18. The composition according to Claim 17, wherein the polyolefins are chosen from poly- $\alpha$ -olefins.

19. The composition according to Claim 1, wherein the at least one insoluble conditioning agent is present in an amount ranging from 0.01% to 20% by weight, relative to the weight of the composition.

20. The composition according to Claim 19, wherein the at least one insoluble conditioning agent is present in an amount ranging from 0.1% to 10% by weight, relative to total weight of the composition.

21. The composition according to Claim 1, further comprising at least one surfactant chosen from nonionic, anionic and amphoteric surfactants.

22. The composition according to Claim 21, wherein the at least one surfactant is present in an amount ranging from 0.01% to 30% by weight, relative to the total weight of the composition.

23. The composition according to Claim 1, further comprising at least one non-fluorescent additional direct dye chosen from nonionic, cationic and anionic direct dyes.

24. The composition according to Claim 1, wherein the at least one non-fluorescent additional direct dye is chosen from nitrobenzene dyes, azo dyes, anthraquinone dyes, naphthoquinone dyes, benzoquinone dyes, phenothiazine dyes,



indigoid dyes, xanthene dyes, phenanthridine dyes, phthalocyanin dyes and triarylmethane-based dyes.

25. The composition according to Claim 24, wherein the at least one non-fluorescent additional direct dye is present in an amount ranging from 0.0005% to 12% by weight, relative to the total weight of the composition.

26. The composition according to Claim 25, wherein the at least one non-fluorescent additional direct dye is present in an amount ranging from 0.005% to 6% by weight, relative to the total weight of the composition.

27. The composition according to Claim 1, wherein the composition is in the form of a lightening dyeing shampoo.

28. The composition according to Claim 1, further comprising at least one oxidation base chosen from para-phenylenediamines, bis(phenyl)alkylenediamines, para-aminophenols, ortho-aminophenols and heterocyclic bases, and the addition salts thereof with an acid or with an alkaline agent.

29. The composition according to Claim 28, wherein the at least one oxidation base is present in an amount ranging from 0.0005% to 12% by weight, relative to the total weight of the composition.

30. The composition according to Claim 29, wherein the at least one oxidation base is present in an amount ranging from 0.005% to 6% by weight, relative to the total weight of the composition.

31. The composition according to Claim 1, further comprising at least one coupler chosen from meta-phenylenediamines, meta-aminophenols, meta-diphenols and heterocyclic couplers, and the addition salts thereof with an acid or with an alkaline agent.

32. The composition according to Claim 31, wherein the at least one coupler is

present in an amount ranging from 0.0001% to 10% by weight, relative to the total weight of the dye composition.

33. The composition according to Claim 32, wherein the at least one coupler is present in an amount ranging from 0.005% to 5% by weight, relative to the total weight of the dye composition.

34. The composition according to Claim 1, further comprising at least one oxidizing agent.

35. The composition according to Claim 34, wherein the at least one oxidizing agent is chosen from hydrogen peroxide, urea peroxide, alkali metal bromates, persalts, enzymes, and two-electron and four-electron oxidoreductases.

36. The composition according to Claim 35, wherein the persalts are chosen from perborates and persulphates.

37. The composition according to Claim 35, wherein the enzymes are chosen from peroxidases.

38. The composition according to Claim 35, wherein the at least one oxidizing agent is hydrogen peroxide.

39. A process for dyeing human keratin fibers with a lightening effect, comprising,  
a) applying at least one composition, comprising in a cosmetically acceptable medium,

- at least one fluorescent dye that is soluble in the medium and
- at least one conditioning agent that is insoluble in the medium, chosen from:
  - synthetic oils;
  - mineral oils;
  - plant oils;

- animal oils;
- fluoro oils;
- perfluoro oils;
- natural and synthetic waxes;
- carboxylic acid esters; and
- compounds of formula  $R_3\text{CHOH-CH(NHCOR}_1\text{)-CH}_2\text{OR}_2$ , wherein

-  $R_1$  is chosen from  $C_{14}$ - $C_{30}$  alkyl radicals, optionally substituted in at least one position chosen from the  $\alpha$  position with at least one hydroxyl radical and the  $\omega$  position with at least one hydroxyl radical esterified with at least one fatty acid chosen from  $C_{16}$ - $C_{30}$  fatty acids,

-  $R_2$  is chosen from a hydrogen atom and (glycosyl) $_n$  and (galactosyl) $_m$  radicals wherein  $n$  is a number ranging from 1 to 4 and  $m$  is a number ranging from 1 to 8, and

-  $R_3$  is chosen from  $C_{15}$ - $C_{26}$  hydrocarbon-based radicals optionally substituted with at least one radical chosen from alkyl radicals and  $C_{15}$ - $C_{26}$   $\alpha$ -hydroxyalkyl radicals optionally esterified with at least one  $C_{16}$ - $C_{30}$   $\alpha$ -hydroxy acid;

- b) leaving the at least one composition on the keratin fibers to act for a time period sufficient to develop the desired coloration and lightening;
- c) optionally rinsing the keratin fibers;
- d) optionally washing the keratin fibers with shampoo and optionally rinsing the keratin fibers; and
- e) drying or leaving to dry the keratin fibers.

40. A process comprising,

- a) separately storing, at least one composition comprising, in a cosmetically

acceptable medium,

- at least one fluorescent dye that is soluble in the medium and
- at least one conditioning agent that is insoluble in the medium, chosen from:

- synthetic oils;
- mineral oils;
- plant oils;
- animal oils;
- fluoro oils;
- perfluoro oils;
- natural and synthetic waxes;
- carboxylic acid esters; and
- compounds of formula  $R_3\text{CHOH-CH(NHCOR}_1\text{)-CH}_2\text{OR}_2$ , wherein

-  $R_1$  is chosen from  $C_{14}$ - $C_{30}$  alkyl radicals, optionally substituted in at least one position chosen from the  $\alpha$  position with at least one hydroxyl radical and the  $\omega$  position with at least one hydroxyl radical esterified with at least one fatty acid chosen from  $C_{16}$ - $C_{30}$  fatty acids,

-  $R_2$  is chosen from a hydrogen atom and (glycosyl) $_n$  and (galactosyl) $_m$  radicals wherein  $n$  is a number ranging from 1 to 4 and  $m$  is a number ranging from 1 to 8, and

-  $R_3$  is chosen from  $C_{15}$ - $C_{26}$  hydrocarbon-based radicals optionally substituted with at least one radical chosen from alkyl radicals and  $C_{15}$ - $C_{26}$   $\alpha$ -hydroxyalkyl radicals optionally esterified with at least one  $C_{16}$ - $C_{30}$   $\alpha$ -hydroxy acid and

at least one oxidizing composition comprising, in a cosmetically acceptable medium, at least one oxidizing agent;

b) mixing the at least one composition and the at least one oxidizing composition at the time of use;

c) applying the mixture to the keratin fibers;

d) leaving the mixture on the keratin fibers to act for a time period sufficient to develop the desired coloration; and

e) rinsing the keratin fibers, optionally washing the keratin fibers with shampoo, rinsing the keratin fibers and drying the keratin fibers.

41. The process according to Claim 39, wherein the at least one composition is applied to hair with a tone height of less than or equal to 6.

42. The process according to Claim 41, wherein the at least one composition is applied to hair with a tone height of less than or equal to 4.

43. The process according to Claim 40, wherein the at least one composition is applied to hair with a tone height of less than or equal to 6.

44. The process according to Claim 41, wherein the at least one composition is applied to hair with a tone height of less than or equal to 4.

45. The process according to Claim 39, wherein the human keratin fibers are artificially colored or pigmented.

46. The process according to Claim 40, wherein the human keratin fibers are artificially colored or pigmented.

47. A process for coloring dark skin with a lightening effect comprising,  
-applying to the skin at least one composition, comprising, in a cosmetically acceptable medium,

- at least one fluorescent dye that is soluble in the medium and

- at least one conditioning agent that is insoluble in the medium, chosen from:

- synthetic oils;
- mineral oils;
- plant oils;
- animal oils;
- fluoro oils;
- perfluoro oils;
- natural and synthetic waxes;
- carboxylic acid esters; and
- compounds of formula  $R_3\text{CHOH-CH(NHCOR}_1\text{)-CH}_2\text{OR}_2$ , wherein

-  $R_1$  is chosen from  $C_{14}$ - $C_{30}$  alkyl radicals, optionally substituted in at least one position chosen from the  $\alpha$  position with at least one hydroxyl radical and the  $\omega$  position with at least one hydroxyl radical esterified with at least one fatty acid chosen from  $C_{16}$ - $C_{30}$  fatty acids,

-  $R_2$  is chosen from a hydrogen atom and (glycosyl) $_n$  and (galactosyl) $_m$  radicals wherein  $n$  is a number ranging from 1 to 4 and  $m$  is a number ranging from 1 to 8, and

-  $R_3$  is chosen from  $C_{15}$ - $C_{26}$  hydrocarbon-based radicals optionally substituted with at least one radical chosen from alkyl radicals and  $C_{15}$ - $C_{26}$   $\alpha$ -hydroxyalkyl radicals optionally esterified with at least one  $C_{16}$ - $C_{30}$   $\alpha$ -hydroxy acid and

- drying the skin or leaving the skin to dry.

48. A multi-compartment device for dyeing and lightening keratin fibers, comprising,

- at least one compartment comprising at least one composition, comprising, in a cosmetically acceptable medium,

- at least one fluorescent dye that is soluble in the medium and
- at least one conditioning agent that is insoluble in the medium, chosen from:

- synthetic oils;
- mineral oils;
- plant oils;
- animal oils;
- fluoro oils;
- perfluoro oils;
- natural and synthetic waxes;
- carboxylic acid esters; and
- compounds of formula  $R_3\text{CHOH-CH(NHCOR}_1\text{)-CH}_2\text{OR}_2$ , wherein

-  $R_1$  is chosen from  $C_{14}$ - $C_{30}$  alkyl radicals, optionally substituted in at least one position chosen from the  $\alpha$  position with at least one hydroxyl radical and the  $\omega$  position with at least one hydroxyl radical esterified with at least one fatty acid chosen from  $C_{16}$ - $C_{30}$  fatty acids,

-  $R_2$  is chosen from a hydrogen atom and (glycosyl) $_n$  and (galactosyl) $_m$  radicals wherein  $n$  is a number ranging from 1 to 4 and  $m$  is a number ranging from 1 to 8, and

-  $R_3$  is chosen from  $C_{15}$ - $C_{26}$  hydrocarbon-based radicals optionally substituted with at least one radical chosen from alkyl radicals and  $C_{15}$ - $C_{26}$   $\alpha$ -hydroxyalkyl radicals optionally esterified with at least one  $C_{16}$ - $C_{30}$   $\alpha$ -hydroxy acid and

- at least one other compartment comprising at least one oxidizing composition comprising at least one oxidizing agent.

49. A method for coloring a keratin material with a lightening effect comprising

applying, at least one composition, comprising, in a cosmetically acceptable medium,

- at least one fluorescent dye that is soluble in the medium and
- at least one conditioning agent that is insoluble in the medium, chosen from:
  - synthetic oils;
  - mineral oils;
  - plant oils;
  - animal oils;
  - fluoro oils;
  - perfluoro oils;
  - natural and synthetic waxes;
  - carboxylic acid esters; and
  - compounds of formula  $R_3\text{CHOH-CH(NHCOR}_1\text{)-CH}_2\text{OR}_2$ , wherein

-  $R_1$  is chosen from  $C_{14}$ - $C_{30}$  alkyl radicals, optionally substituted in at least one position chosen from the  $\alpha$  position with at least one hydroxyl radical and the  $\omega$  position with at least one hydroxyl radical esterified with at least one fatty acid chosen from  $C_{16}$ - $C_{30}$  fatty acids,

-  $R_2$  is chosen from a hydrogen atom and (glycosyl) $n$  and (galactosyl) $m$  radicals wherein  $n$  is a number ranging from 1 to 4 and  $m$  is a number ranging from 1 to 8, and

-  $R_3$  is chosen from  $C_{15}$ - $C_{26}$  hydrocarbon-based radicals optionally substituted with at least one radical chosen from alkyl radicals and  $C_{15}$ - $C_{26}$   $\alpha$ -hydroxyalkyl radicals optionally esterified with at least one  $C_{16}$ - $C_{30}$   $\alpha$ -hydroxy acid.

50. The method according to Claim 49, wherein the keratin material is artificially colored or pigmented keratin fibers.



51. The method according to Claim 50, wherein the keratin material is hair and/or dark skin.

52. The method according to Claim 49, wherein the hair has a tone height of less than or equal to 6.

53. The method according to Claim 52, wherein the hair has a tone height of less than or equal to 4.